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## Farm Mortgage Debt Low

**F**ARMERS now have much less mortgage debt than after World War I and substantially less than in 1940. Improved farm incomes during World War II, as in 1917-18, boosted land values and swelled the number of farm transfers. This time, however, these changes did not pile up a big mortgage debt on farmers' shoulders, as was the case after World War I. Farm-mortgage debt at the start of 1947 was little more than half the 1920 debt and less than half the peak debt of \$10,785,621,-000 reached in 1923. Furthermore, it was 27 percent below what it was in January 1940 (table 1). Estimates prepared jointly by the Bureau of the Census and Bureau of Agricultural Economics also show the number of mortgaged farms to be down sharply from 1940 levels.

### Debt at Low Level

Between 1940 and 1947, the mortgage load on the Nation's farms shrunk to \$4,777,355,000 from \$6,586,399,000 (table 2). The total was smaller every year from 1940 through January 1946, but up slightly on January 1 this year. The net liquidation of 1.8 billion dollars since January 1940 is almost as large as the shrinkage in mortgage debt between 1930 and 1935. However, the recent decline comes almost entirely from farmers' paying off their debts,

whereas in 1930-35 there were many thousands of foreclosures. Although farm-mortgage debt rose slightly from 1946 to 1947, the total now is still much below 1940; a sharp contrast with the World War I period, when the debt expanded rapidly.

Farmers' incomes in recent years have averaged about 50 percent above World War I. Also, civilian goods were scarcer than in the World War I period. Not only did farmers put more of their income into payment of debts than in 1917-20, but they also borrowed less money. In the early 20's, refunding of loans made during and after the war added a great deal to the farm-mortgage debt.

After nearly a quarter century of declining farm-mortgage debt, the total showed an increase at the beginning of 1947. Although the upturn for the country as a whole amounted to only 2.0 percent, it was quite general, with only the North Central regions continuing to show a drop. If farmers continue to spend large amounts for new equipment and improvements instead of for debt repayment, it is likely that their debts will rise further in the next year.

As might be expected, year-to-year changes in farm-mortgage debt since 1940 have varied widely between regions. In the South Atlantic and East South Central States, the debt was slow

**Table 1.—Farm-mortgage debt**

Jan. 1	Previous estimates	Revised estimates	Percentage change
	1,000 dollars	1,000 dollars	Percent
1940.....	6,586,399	6,586,399	0.0
1941.....	6,534,467	6,491,435	-0.7
1942.....	6,483,847	6,372,277	-1.7
1943.....	6,117,168	5,950,975	-2.7
1944.....	5,634,772	5,389,080	-4.4
1945.....	5,270,655	4,932,942	-6.4
1946.....	5,080,717	4,681,720	-7.9
1947.....	5,253,511	4,777,355	-9.1

to fall in the early 1940's. Also these regions were the first to show an increase after the war. The sharpest drop during 1940-45 occurred in the East and West North Central States where it fell off about one-third. These were also the regions where debt continued to fall during 1946, while it increased elsewhere. Compared with other regions, farm-mortgage debt declined least in the South Atlantic region from 1940 through 1945, the drop being only 15 percent. This region also showed the largest percentage increase last year. Farmers in the North Central States still carry nearly half of the total farm-mortgage debt in the Nation. However, their share of the total is now smaller than in 1940.

#### Fewer Mortgaged Farms

A striking change in the farm-mortgage picture has been the sharp decline in number of farms under mortgage. The total number of mortgaged farms dropped from 2,363,777 in 1940 to 1,711,665 in 1945, or 27.6 percent (table 3). This compares with an increase

of 0.6 percent between 1935 and 1940 and a decrease of 6.9 percent between 1930 and 1935. From 1940 to 1945, however, the number of all farms fell from 6,096,799 to 5,859,169, or about 4.0 percent. This decrease accounted for part of the drop in mortgaged farms.

In 1945 only 29.2 percent of the farms had mortgages, compared with 38.8 percent in 1940. This new low proportion was well below the 34.5 percent reported for 1935. At that time many farms were in the hands of lenders with debts washed out by foreclosure. It was not until after 1940 that most of these lender-held farms were sold to farmers and investors. Such sales often were accompanied by mortgages. Had it not been for these, the proportion of farms under mortgage in 1945 would have been somewhat lower.

The South had the largest decline from 1940 to 1945 in the number of farms under mortgage. The decline was especially large in the East South Central region where the number was down 40.5 percent. Compared with other regions, the South also had the lowest proportion of farms under mortgage. In the South Atlantic States only 20.1 percent of the farms were mortgaged at the beginning of 1945, in contrast to 38.2 percent in the West North Central region.

The North had the smallest decline in number of mortgaged farms. The reduction in the New England and Middle Atlantic regions was less than 20.0 percent.

Information on number of mort-

**Table 2.—Farm-mortgage debt outstanding, by regions, January 1, 1940 and 1945-47, with percentage change**

Geographic division	1940	1945		1946		1947	
		Amount	Percentage change 1940-45	Amount	Percentage change 1945-46	Amount	Percentage change 1946-47
	1,000 dol.	1,000 dol.	Percent	1,000 dol.	Percent	1,000 dol.	Percent
New England.....	150,499	114,860	-23.7	109,247	-4.9	110,082	0.8
Middle Atlantic.....	372,155	293,793	-21.1	284,801	-3.1	307,975	8.1
East North Central.....	1,425,539	1,020,938	-28.4	966,659	-5.3	961,627	-0.5
West North Central.....	2,173,966	1,594,067	-26.7	1,440,506	-9.6	1,362,276	-5.4
South Atlantic.....	405,037	335,712	-17.1	344,283	2.6	391,567	13.7
East South Central.....	384,094	297,320	-22.6	299,977	.9	322,368	7.6
West South Central.....	713,036	551,903	-22.6	518,136	-6.1	544,389	5.1
Mountain.....	357,190	262,291	-26.6	257,843	-1.7	281,508	9.2
Pacific.....	604,863	462,058	-23.6	400,268	-4.4	495,563	7.7
United States.....	6,586,399	4,932,942	-25.1	4,681,720	-5.1	4,777,355	2.0

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gaged farms is not available for the years since 1945. However, it is likely that the number declined further during 1945 and changed little during 1946.

### Debt Per Farm Varies

Although both the number of mortgaged farms and the total farm-mortgage debt has declined, the average debt per farm for the Nation as a whole increased somewhat from 1940 to 1945. The average mortgage debt per farm was \$2,882 in 1945, compared with \$2,786 in 1940. In the South and West, the increase was large, while elsewhere the average declined or changed little. In the East South Central region, for example, the average increased from \$1,026 per farm in 1940 to \$1,336 in 1945, and in the South Atlantic States from \$1,360 to \$1,602. To some extent the rise reflects the tendency towards larger farm units. This is particularly the case in the Moun-

tain States. In the South, it stems largely from the fact that, because of higher incomes, many small farm owners no longer borrow on real estate security each year to cover production expenses. Such borrowing has been common in this area in the past.

Generally speaking, the larger and more valuable farms are more frequently mortgaged than are the smaller and less valuable ones. This was the case in 1945 when only 29.2 percent of all farms were under mortgage, whereas 32.6 percent of the land and 35.3 percent of the value were accounted for by mortgaged farms. Higher values and lower debt also resulted in a lower ratio of debt to value. In the case of mortgaged farms, debt was only 30.2 percent of the value in 1945, compared with 41.5 percent in 1940. Farm-mortgage debt in 1947 equalled only 8.2 percent of the value of all the Nation's farms—both mortgaged and free of

**Table 3.—Number and percentage of farms under mortgage, by tenures and by divisions, 1940 and 1945**

Geographic division and year		All mortgaged farms		Mortgaged full-owner farms		Mortgaged part-owner farms <sup>1</sup>		Mortgaged tenant and manager farms	
		Number	Percentage of all farms	Number	Percentage of all full-owner farms	Number	Percentage of all part-owner farms	Number	Percentage of all tenant and manager farms
			Per-cent		Per-cent		Per-cent		Per-cent
New England.....	1940	62,918	46.5	54,530	46.8	4,092	58.0	4,296	36.8
	1945	53,274	35.4	46,741	35.2	4,604	49.1	1,929	24.1
Middle Atlantic.....	1940	139,627	40.1	112,765	41.9	12,661	51.8	14,201	26.1
	1945	112,727	32.4	90,340	33.5	14,286	39.9	8,101	19.4
East North Central.....	1940	430,732	42.8	287,130	47.5	64,447	56.1	79,155	27.7
	1945	323,707	33.9	212,916	36.2	57,451	42.7	53,340	23.1
West North Central.....	1940	494,418	45.3	240,587	53.8	118,207	67.0	135,624	29.0
	1945	394,080	38.2	200,545	42.8	103,615	50.6	89,920	25.1
South Atlantic.....	1940	297,795	29.2	155,221	29.9	22,686	35.1	119,888	27.5
	1945	209,537	20.1	119,371	20.5	13,802	23.8	76,304	19.0
East South Central.....	1940	374,352	34.6	150,523	33.7	24,081	39.4	199,745	38.8
	1945	222,558	23.2	100,918	20.2	15,238	29.3	106,492	26.0
West South Central.....	1940	331,172	34.3	128,333	35.5	44,170	48.6	158,669	31.0
	1945	228,214	26.0	110,954	26.0	29,477	35.3	87,783	23.9
Mountain.....	1940	100,091	42.9	54,731	42.7	27,328	60.1	18,032	30.2
	1945	68,460	32.2	33,327	32.0	20,998	41.0	9,135	22.1
Pacific.....	1940	132,672	48.0	94,492	49.7	18,744	61.8	19,436	34.9
	1945	99,108	35.2	76,480	36.1	13,408	43.1	9,220	23.8
United States.....	1940	2,363,777	38.8	1,278,312	41.4	336,416	54.7	749,049	31.2
	1945	1,711,665	29.2	996,592	30.2	272,879	41.3	447,194	23.3

<sup>1</sup> Data refer only to part owned by part-owner.

debt—compared with 10.6 percent in 1945 and 19.6 percent in 1940. It should be kept in mind, however, that although the average equities of farm owners have grown, their gains have come largely from higher land values, and only partly from a fall in debt. And, of course, many individual farm owners even now have heavy mortgages.

The substantial debt reduction since 1940 has been a direct result of high incomes, incomes considerably higher than World War I. The amount of debt repayment, however, is not fully reflected in the net reduction. At the same time that outstanding loans were dropping almost 2 billion dollars between 1940 and 1946, lenders were recording more than 5 billion dollars of farm mortgages. Some of these, of course, were merely renewals of maturing mortgages, but many were new mortgages. Between 1930 and 1935, the other period of sharp debt liquidation, mortgages were also recorded in considerable volume, but a large part of these were the result of refinancing. Furthermore, most of the debt liquidation in that period came as the result of foreclosures.

The new mortgage debt which has come into existence since 1940 has resulted to a large extent from purchase loans. Estimates of the number of farms changing ownership by voluntary sales and trades rose from 30.2 per 1,000 of all farms in the year ended March 15, 1940 to 55.9 per 1,000 in 1944. The volume was somewhat smaller in 1945, but moved to new highs in 1946 and 1947, when such transfers were 57.4 and 57.7 per 1,000 of all farms. It is true that slightly more than half of all sales since 1943 have been for cash and that the average downpayment in connection with mortgage-financed sales has represented about 40 percent of the purchase price. This means that some mortgaged farms were freed of debt through cash sales. Nevertheless, about three-fourths of the people who bought farms on credit (one-third of all sales) took on a debt of at least half of the purchase price. Around a third of the buyers needing

credit (one-seventh of all sales) went in debt for at least 75 percent of the sales price. The average size of purchase loans also rose as land values went up.

Mortgage foreclosures and distress sales, which loomed so large in the 1930's, reached new lows after 1940. Whereas they still numbered 12.6 per 1,000 of all farms in 1940, they were only 1.1 per 1,000 in the year ended March 15, 1947. Any reduction in debt or in the number of mortgaged farms because of these transfers was more than offset by sales of lender-held farms.

On the average, farm owners are now in much better shape financially than after World War I. Of course, not all farmers or all farming areas have prospered equally. But for farmers as a whole, mortgage debts are at new lows. Also, many farmers have built up strong reserves in bank deposits, savings bonds, and other liquid assets. Their equities in all types of assets have now passed the 100 billion dollar mark, a new record.

Some of the reasons for the rise in mortgage debt last year are fairly clear. Although farm income now is higher than ever, less of it is now going to pay off debts than in the war years. And more of it is going for improvements and equipment. Higher costs for these, as well as for family living and production items, have offset in part the higher incomes. The volume of land transfers continues at a high level. Many sales are for cash, but many others are resulting in mortgages for a big share of current values.

If farmers' incomes fall from present levels, a further rise in farm-mortgage debt would be expected. Farm owners carrying heavy mortgages in relation to the value of their farms in such a period would see their equities slip away. However, most farm owners now seem to be holding their debts down to manageable size.

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## Elements of Farm Prosperity

**T**HE present strong demand for farm products draws its strength from a large number of elements, all of which help to fix the size of the farmer's market.

The high level of agricultural prices and income now, compared with prewar, suggests the need for review of these factors, and especially of the differences between their status now and prewar.

First of all, American production of goods and services is much above prewar. One of the requisites for prosperity—large output of real goods and personal services—has now been achieved. Gross national product was 204 billion dollars in 1946, 2½ times the 1935-39 average of 84 billions. As reported by the Department of Commerce, this figure measures the total production of goods and services in the Nation at market prices. In the first half of 1947, the gross national product rose further to the rate of 224 billions annually. To some extent, these changes represented only higher prices. However, even when deflated by the consumers' price index, the real gross national product in 1946 and again in the first half of 1947 was approximately 145 billions of 1935-39 dollars. Thus, the output of all goods and services has increased by nearly 75 percent in less than a decade.

Our total income is higher than prewar. Personal incomes—the part of the income derived from gross national product that goes to consumers—also has increased. Disposable personal income, which is personal income less taxes and a few minor deductions, was 158 billion dollars in 1946 and 170 billions (annual rate) in the first half

of 1947. In 1935-39 it was 67 billions. Deflated by the consumers' price index, disposable income in 1946 and 1947 has been about 110 billion prewar dollars. The real purchasing power of consumers has risen about two-thirds since 1935-39.

Also, more consumers are now in the higher income groups than in 1935-39, both in dollars and in real purchasing power. Although our data are not exact enough to show whether the pattern of distribution of consumers' incomes has changed, they do show that incomes, both dollar and real, have risen at all levels. As found by the Federal Reserve Board, only 16 percent of all spending units had money incomes of \$2,000 or more per year in 1935-36, and only 47 percent had incomes of \$1,000 or more. In 1941, 35 percent had incomes of at least \$2,000 and the incomes of 65 percent were over \$1,000 each. By 1945, 53 percent of all spending units were in the upper group and 80 percent had incomes above \$2,000 each. And in 1946, 60 percent were getting more than \$2,000 and 83 percent more than \$1,000.

Again, these figures have more meaning when converted to prewar dollars. If a dividing line be taken at \$2,000 of 1935-39 buying power, approximately 16 percent of all spending units were above this line in 1935-36. By 1941, 32 percent were in this higher group. For 1945, the figure is 39 percent. And in 1946, about 40 percent were receiving incomes equivalent to \$2,000 or more in 1935-39 dollars.

Another important factor in present prices for farm products is that the production of food is not as much above prewar as is the output of industrial

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products. This affects the competitive position of food. Despite the great increase in food production, the greater expansion since prewar has been in industrial production. Between 1935-39 and 1946, production of food for sale and home use rose 39 percent. But production of nondurable industrial goods (which are mainly for direct consumption) rose 65 percent.

A strong export demand has strengthened the over-all demand for farm products. It has augmented domestic demand and partially competed with it for American foodstuffs. Exports of foodstuffs, including shipments of foods for civilians in foreign United States military zones, increased from approximately 275 million dollars annually in 1935-39 to 2,500 millions in 1946. Part of this change in value was caused by higher prices, but the quantity was roughly four times the prewar level.

In fiscal year 1946-47, roughly 8 percent of all United States food supplies were exported or shipped to military civilians.

Among the various foods, present exports vary greatly in quantity and in the degree of competition with domestic demand. Exports of meats, for example, have been running at 1 to 2 percent of total supplies. Almost all egg exports in fiscal 1946-47 were from supplies bought by the U. S. Department of Agriculture in its price support operations. Exports of wheat, on the other hand, have been very large and are an important factor in the wheat price. But wheat has historically been sent abroad in considerable volume, being produced partly for the export market. Without large exports, the price of wheat would fall to the support level because of the relative inflexibility of domestic demand for wheat and its products. To cite another example of the complex relation of export to domestic demands, exports of some dairy products are directly competitive, but those of nonfat dry milk solids, partly a byproduct and in large supply, are less so.

Made possible by high incomes, and as a consequence of consumer preferences and of the competitive position of food, consumer expenditures for food have risen rapidly. This is shown by

data recently released by the Department of Commerce. Expenditure for food in all forms, valued as purchased in stores, restaurants, schools, or other places, and including food furnished government employees and military personnel and consumed on farms, amounted to 42.9 billion dollars in 1946. In 1935-39 they totaled only 15.4 billions. Even more significant, expenditures for food in 1946 were 29.9 percent of total expenditures by consumers for all goods and services, compared with 24.3 percent in 1935-39.

All these factors are of major importance. In addition the demand for food has been influenced by a number of others, such as the customary sluggishness of prices for some industrial goods that are competitive with food, and the changing fixed obligations of consumers. These other factors could be very significant if longer trends in demand for food were to be considered.

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AND

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### Citrus Acreage

**A**CREAGE of citrus trees of bearing age in the United States has risen from 282,100 acres in 1919 to a total of 848,000 acres in 1947. Orange trees, including tangerines, make up about 68 percent of the total bearing acreage. Grapefruit trees make up 23 percent, lemon trees 8 percent and lime trees .5 percent.

Most of the Nation's navel oranges and lemons are grown in California. Nearly all commercial tangerines and lime plantings are in Florida. Valencia oranges are important in all citrus areas. Of the Nation's total grapefruit acreage, Florida has 46 percent and Texas 40 percent.

Prior to the 1930's citrus fruits were crops of minor commercial importance outside of California and Florida. In 1919, Texas and Arizona each had less than 1,000 acres of bearing-age citrus trees. In 1930, Texas citrus trees in bearing had spread to about 23,000 acres and Arizona to about 4,000 acres. Texas now has about 113,000 acres and Arizona about 20,000 acres of bearing-age trees.

## Cattle Feeding In Iowa

**CATTLE** feeding in Iowa is big business.

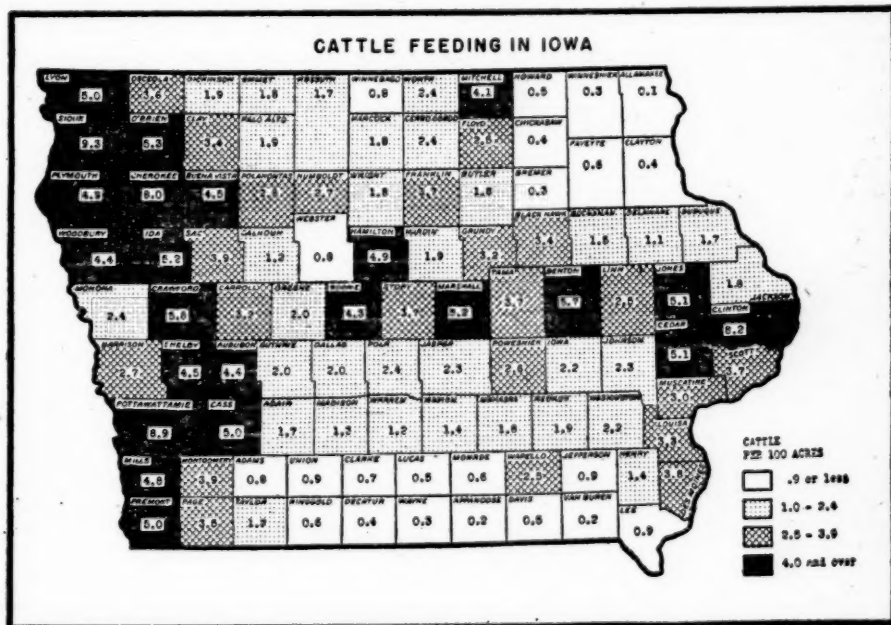
Iowa's reputation as leader in corn and hog production usually overshadows its role as beef producer. Yet Iowa farms each year market more beef than the combined total sold from the six range States of Idaho, Wyoming, Colorado, New Mexico, Utah and Nevada.

Since 1940, beef production in Iowa has averaged more than 800,000 tons per year, live weight. Based on last year's meat consumption per capita this output amounts to a full year's beef supply for over 12½ million people. A large share of Iowa beef comes from dairy herds, but still more of it comes from feed lot cattle.

Iowa feeders have handled about 1,600,000 head of beef cattle per year since 1942. About two-thirds of these were brought in from other States to be grain-finished, and the rest came from Iowa-grown beef herds. The State's cattle-feeding enterprise helps

importantly to conserve the Nation's feed supplies and insure orderly marketing of beef cattle. Cattle feeding in Iowa converts into human food a large tonnage of fodder, grass, hay and silage that might otherwise be wasted. Also, the feed lots act as a dam that helps hold back the flood of grass cattle coming off the range in the fall. The reservoir of beef thus created helps assure a steady supply of beef to the markets throughout the rest of the season.

In each year from 1942 through 1946, Iowa feeders shipped in an average of 1,100,000 head of stocker and feeder cattle. These in-shipments, plus the 500,000 head from Iowa's own beef breeding-herds provide the pool of cattle available to the feeder. Some cattle are shipped in during each month of the year. However, about 70 percent of the total annual in-shipments are received during August, September, October and November. This movement flows largely through the big terminal



Missouri River markets. Over half of the total in-shipments come through the yards at Sioux City, Omaha, or Kansas City. Other important market sources are Denver, Chicago, St. Paul, St. Joseph, Fargo, and Sioux Falls.

Outside the terminal markets, about 30 percent of the total feeder movement enters Iowa directly from the range, with Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Texas and Wyoming furnishing 90 percent of this supply. Nebraska leads in the direct sales of feeders, furnishing Iowa lots more than twice as many cattle as any other single State.

The individual feeder has several sources of supply when he is in the market for cattle. He may buy from the terminal markets, or direct from a rancher or farmer or through a local dealer or a livestock auction ring.

Feeding systems on Iowa feed lots differ widely. They range all the way from putting a short term dry lot grain finish on heavy cattle to running calves through a combined grain- and forage-feeding period that may take more than 12 months.

The two most popular methods are:

(1) Feeding heavy cattle for two to six months, with the proportion of concentrates and roughage in the ration varying according to the class of cattle, the market differential between grades and feed price relationship; and (2) Feeding calves or yearlings for 6 to 12 months. A maximum of forage or pasture fed during the first part of the period, followed by an intensive grain finish in the dry lot. There is no standard procedure. Conditions vary from year to year, and from month to month. However, with normal crop production, there is a remarkable uniformity in the total numbers of cattle handled over a 12-month period. An important feature of the cattle feeding enterprise is that it maintains a steady flow of cattle out of Iowa feed lots into slaughter channels.

Monthly cattle marketings over the

1936-45 period show the following percentages of the annual total:

Month	Percent	Month	Percent
January.....	9.1	July.....	8.4
February.....	7.8	August.....	8.2
March.....	8.4	September.....	7.7
April.....	8.2	October.....	7.3
May.....	8.7	November.....	7.9
June.....	9.1	December.....	9.2

In only one of the 120 months in this 10-year period has any individual month varied more than two percentage points from the 10-year average pattern. Thus Iowa cattle feeders perform a real service in furnishing an even flow of finished beef to the Nation's meat consumers.

Cattle are fed in all parts of Iowa. However, as the accompanying map shows, the centers of cattle feeding are in the western fourth of the State and in a narrow belt through the central region. Clinton, Cherokee, Pottawattamie and Sioux are the State's largest cattle-feeding counties.

Iowa's 1946 State Farm Census shows Center Township in Clinton County is one of the areas where feeding is most concentrated. There are 162 farms in this township. The average size of each farm is 170 acres. Of these 162 farms, 112 bought feeder cattle in 1946. Some 7,200 head were shipped into the township for feeding. The largest number of purchases by any one operator was 377 head. This situation is typical of the Iowa feeding picture. There are a few large outfits in the State, each of which may handle several thousand head of cattle in a year, but the bulk of the feeding is done by individual farmers who handle from 10 to 150 head each year.

It is the average Iowa farmer who feeds out most of the cattle fed in Iowa. And, if you live east of the Mississippi River, it's a fair bet that any good, choice or prime cut of beef you buy has come from an Iowa feed lot.

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## World Census of Agriculture

**E**VERY farmer knows that it is worth while occasionally to stop and take stock of where he is, to see whether he is getting ahead or dropping behind, and to figure out what changes, if any, he ought to make in his way of doing business.

Nations, too, need to take stock occasionally of their agricultural resources and how they are being used. Taking stock is so important that the Constitution of the United States provides that a census of population is to be taken every 10 years. But just to count the people isn't enough; we need to know something of what they are doing. For many years the United States has taken a Census of Agriculture; since 1920 there has been one every five years.

Many other countries have been taking censuses of their agriculture regularly; there are countries in Europe which take a census of agriculture every year. With agriculture upset in many parts of the world by the war and by postwar changes, there is now more than ever a need for world-wide stock-taking in agriculture.

Accordingly, at their conference in Copenhagen in 1946 the nations which are members of the Food and Agriculture Organization of the United Nations asked FAO to take the lead in developing plans for a World Census of Agriculture in 1950. Countries which are already planning to take a Census in 1950 or just before or after that date are to be asked to work together so that the information which each one gets can be compared with that which others will be getting. Countries which have not had a census for many years, and countries which have never had a census of agriculture, are to be helped to work out one, if they wish. Each country will take its own census. If they work together in making their plans and their statistical tables, then some time after 1950 it will be possible to add up the results from the many countries to get world wide totals for some of the major agricultural items.

As a first step, FAO has developed a preliminary program for the 1950 World

Census of Agriculture, and has sent that to governments asking them to look it over and tell FAO how it fits into their own plans for a Census about 1950. A minimum list of items has been prepared, and all countries are being asked to include at least these. The minimum list includes information on whether farms are owned, rented, managed, or held under some other type of arrangement; the size of farms; the amount of lands used for growing crops, orchards, pasture, woods, and for other uses; the number of people living on the farm or in the farmer's family; the acreage in the most important crops, including wheat, rice, corn, rye, millet, potatoes, and cotton; the number of trees of the most important kinds, including citrus fruits, coffee, and banana; the amount of firewood cut on the holding; whether the work on the farm was done with some kind of power or was done entirely by hand; the number of the most important kinds of livestock and poultry; and the production of milk and eggs.

It is recognized that there are many and wide differences in farming in various parts of the world. Getting the facts in some areas will be harder than in others, and different countries will need different kinds of information. Rice is the most important food crop in some countries; in other countries very little is grown. Also wheat is only a small crop in some areas, but is the most important food crop in others. In the United States it is hard to find a going farm that does not have a tractor or at least a team of horses or mules with which to do the work. In some countries a farm which has such power is exceptional.

Whatever the special needs may be, each government is being asked to work out its plans in such a way that the statistics it gets can be easily compared with those of other countries. For the world as a whole, just as for any nation, it is necessary to have the facts.

CONRAD TAEUBER,  
*Food and Agriculture Organization  
of the United Nations*

## TOBACCO IN NORTH CAROLINA

**A** TOBACCO crop takes a lot of work. On the tobacco farms of North Carolina, the whole farm family often pitches in to help with the work. And farm by farm, county by county, the total labor put forth on tobacco adds up rapidly. Farmers in North Carolina in 1944, for example, put in over one billion man-hours of labor—more than in any other State except Texas. More than a third of this total went into growing, harvesting and selling tobacco. Tobacco took an average of 461 man-hours of labor per acre to grow and harvest—over four times that required for cotton.

Most tobacco producers hold that a crop of the "weed" is a year-round job. In fact, one year sometimes overlaps another—that is, a new crop starts before the old one is sold.

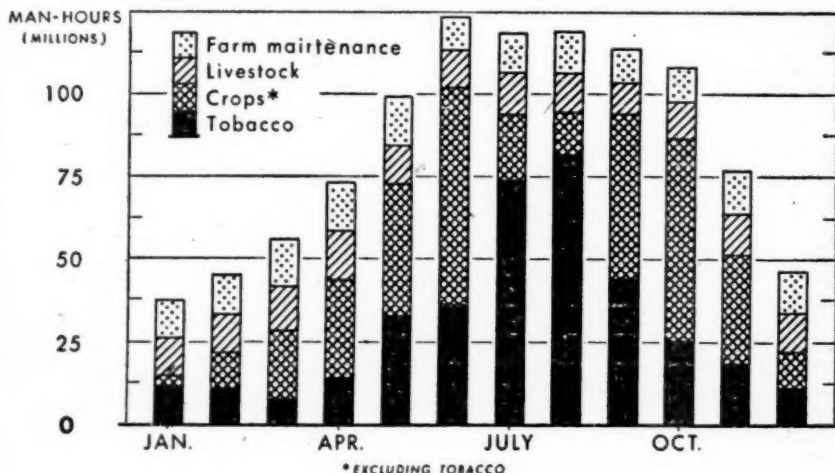
Tobacco is the State's leading money crop. It has been a mainstay in North Carolina farming for over a century. Demand for it is high in this country. At present, American tobacco is wanted

by people of most foreign countries, but very few other countries have the dollars to pay for it. Great Britain has stopped buying, and some other countries have reduced their purchases. However, our own Government, through the Tobacco Stabilization Corporation, is now guaranteeing an average price of around 40 cents per pound to producers. This guarantee is made only to growers who stay within their acreage allotments.

Although tobacco production calls for some work the year round, the bulk of the task comes in July and August, during the harvest or "barning" and curing of the leaves.

The many processes which go on during harvesting, all lead to a great demand for labor. Major weekly harvesting tasks include breaking leaves, trucking to barn, handing, looping on sticks, hanging in the barn, heat curing, taking out of the barn and packing. Curing, especially during the time of killing heats, requires close attention

**MONTHLY DISTRIBUTION OF ESTIMATED MAN-HOURS OF LABOR REQUIRED FOR LIVESTOCK, CROPS, AND FARM MAINTENANCE, NORTH CAROLINA, 1944**



both day and night. Normally, if time permits, the tobacco in the fields is suckered after each weekly priming or breaking. Suckers are broken from the stalk to permit easier breaking of prime leaves, and, also, to retain "body" in the remaining leaves.

Harvesting of individual crops of tobacco lasts about five or six weeks. After harvesting, work shifts to the pack houses. There the cured tobacco is graded, tied, and prepared for market.

Other crops and livestock have to be sidetracked during the tobacco harvest. Harvesting must be done systematically and at exactly the right time. If breaking is done too early, the tobacco cures out heavy and green—if too late, the tobacco cures out thin and dark. When harvest time comes, work focuses on this crop, in order to assure getting the highest quality leaf, which means best prices.

Last year, North Carolina farmers turned out their largest flue-cured tobacco crop on record. Yield per acre also set a new high record. The total acreage harvested was the second largest in history. The crop totaled over 890 million pounds of leaf.

Yields per acre have increased. Since 1932, the yield per acre has been above 800 pounds, except in 1933 and 1936. For four of the past five years, the yield has exceeded 1,000 pounds of leaf, reaching the peak of 1,117 pounds per acre last year.

Especially during the war years, North Carolina tobacco growers applied their efforts toward higher yields, and greater production upon allotted acreage. New emphasis was placed upon such things as heavier applications of fertilizers, careful selection of land for tobacco, use of improved strains and disease-resistant varieties, and setting more plants per acre.

In the Western or mountainous sections of the State, Burley tobacco also has been grown to some extent for several years. The Burley crop is put in well-ventilated barns in August and September and allowed to air cure for 2-3 months. Then the leaves are stripped from the stalks and graded for the market.

Altogether, tobacco is the State's leading crop. In 1946 it accounted for about 58 percent of her cash farm income, and in a large way has replaced cotton that used to be called "King."

The accompanying chart shows the monthly distribution of all labor in North Carolina broken down into four groups. As is shown, more labor is spent on tobacco in July and August than all other farm activities combined.

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### World Cotton Crop

**T**HE world's cotton crop for the current year (1947-48) is estimated at 26.1 million bales, of 500 pounds gross. This is a fifth above the very small crop of 21.5 million bales in 1946-47.

Nearly all the gain comes from larger crops in the United States and the Soviet Union, and expected increases in Brazil, Argentina, and Peru. The expected increases in the Southern Hemisphere countries assume better weather than last season.

In North America, the United States production, estimated at 11,508,000 bales, or 33 percent above 1946, will be supplemented by a Mexican crop estimated at 464,000 bales, or about the same as last year, and by a small amount in the West Indies and Central America.

China's cotton production has climbed steadily since the war, reaching about 2,150,000 bales this year, compared with 1,925,000 the year before, and 1,820,000 in 1945. India's crop is placed at 3,300,000 bales, compared with 3,400,000 the previous year.

In Brazil, early reports indicate a probable small increase in acreage and the 1947-48 crop is estimated tentatively at 2,000,000 bales. Argentina's output in 1947-48 may be increased to about 400,000 bales, compared with last year's small crop of 301,000.

Egypt's 1947 crop, estimated at 1,262,000 bales, represents a small increase above last year's estimate of 1,252,000. Korea's output is about equal to its small 1946 crop of 90,000 bales.

## Talk About Income Figures

**W**E HEAR a lot of figures these days as to how much income everybody has. As individuals, our income is our personal affair. But where everybody's income is concerned, it's everybody's business and everybody is interested.

There are good reasons for this interest. The figures on our joint income—national income, farm income, nonfarm income, and the income of various groups under these larger headings—help us to understand the world we live in. Like a speedometer, they tell us how fast our economic machinery is operating. Also because they measure the varying speeds of the different parts of the machinery, they help show the size and direction of changes that are always under way. Some use of these economic gauges is necessary to us all—to farmers, city people, and the Government.

Because all of us do use these figures at times, a word of caution is in order here. The caution is that such figures require careful handling. All income figures require careful treatment, as well as understanding of what they cover. This is because there are many different kinds of income, each made up of different elements. Strangely enough, due care in use of income figures frequently rules out the use of the term "income." That term is too vague. Terms like gross income, net income, and cash receipts from marketings, take the place of the vague "income."

Proper use of income figures requires some sharp definitions. The kinds of income must be defined, as well as the groups themselves. If we speak of the income of people who work for someone else, we mean wages and salaries. On the other hand, if we are talking about the income of farmers, storekeepers, landlords, factory officials, and retired people, as well as wage and salary workers, then the question of what to call income gets more complicated. Certainly, if we are to compare these different groups, their incomes must be expressed in the same terms. To do that is not a simple matter.

The storekeeper, if we asked him, might say that his income was the total

gross income of his business. The factory official might say that he was paid a 5-percent dividend on 10,000 shares of stock, plus a stated salary. Retired workers might report income from dividends on stocks, interest on bonds, and returns from pensions or annuities. The author of a best-seller might report the income from sale of his book and from royalties. The farmer might report all his income from the sale of farm products. A landlord would report his rents. And the wage and salary workers might report in terms of their regular wage or salary.

The incomes thus reported are of widely different kinds. They include gross receipts from sales, returns on various kinds of investments, annuities, pensions, royalties, wages and salaries. In these forms, they are too diverse for use in making comparisons.

Comparisons, however, can be worked out, using these data as a basis. Wages, salaries, interest, dividends, pensions, and annuities correspond to net income, in the sense that they are not subject to any further deduction before they are available to the recipient for living or for investment. Ordinarily those forms of income could not be made anything but net income. Also, the other forms of income can be used to work out estimates of net income. The net income of the storekeeper can be arrived at by deducting the expenses of his business from the gross income figure. And so can the net income of the landlord, by deducting the expense of running and maintaining his property from the rent he gets. The net income of the officials of the corporation can be figured by computing the dollar value of their dividends and adding it to their salaries and bonuses. The income of the author might be net income, or there might be commissions, salaries of assistants, and other expenses to be deducted from it.

Now what about the farmer? In reporting all the cash he took in from sale of his products, he would have reported an income item called "*cash receipts from farm marketings.*" This is neither his gross income nor his net income. To arrive at his *gross income*,



we must add to this amount the value of home-consumed farm products produced on the farm, the rental value of farm dwellings, and Government payments. Each of these items is a part of his gross income from farming. In arriving at the value of home-grown products that are consumed in his household, the same prices are put on the products that he gets for products actually sold. The cost of up-keep on farm dwellings is counted in his operating expenses.

Deducting production costs from gross income gives the net income of the farmer. This net income is his whole return for his own work, for the work done by his own family without pay, and for return on his investment. Realized net income is not adjusted for the value of inventory changes.

Estimates of net income to all people on farms from farming and of total net income from agriculture are both derived from the totals on realized net income to all farm operators. In arriving at estimates of net income to all persons living on farms from farming the realized net income to farm operators is the point of beginning. This is adjusted for the value of the changes in inventories between the beginning and end of the calendar year. Then the farm wages paid to people living on farms, which were deducted in figuring the net income of farm operators, are added back into the result.

Total net income from agriculture is much the same as the above. But instead of measuring the net income from farming to persons on farms, it shows the net income from farming to all people, both on and off farms. To get this total, the realized net income to farm operators is adjusted for inventory changes, and additions are made to include both the wages of persons on farms from farming and the wages of hired farm workers who do not live on farms. Also, the farm rental income of landlords not on farms and the total of farm mortgage interest payments are added in.

Besides these items, there is another type of income for farm people—the income some of them get from non-farm sources. This income includes

such things as returns from stocks and bonds, rents from nonfarm property, wages and salaries from work in industry or in teaching school, and income from services to local governments. This income from nonfarm sources is not included in either net income to persons on farms from farming, nor in the net income from agriculture: although this income goes to farm people, it does not come from farming.

The total net income from agriculture includes all net income originating in agriculture and is the part of national income that farmers make. It is comparable with nonagricultural income, which consists of wages and salaries, dividends, profits, rents, and interests from nonfarm industries and business.

National income is the total net income of our national economy. Each item going into the total is net income in the sense that no further costs of production are assignable to it. In this sense, wages and salaries, dividends, profits, rents, interest are all net income to those receiving them. National income is the total of net income from agriculture, plus the nonagricultural net income of the country.

Through error, total cash receipts from farming, or even gross farm income, are occasionally used as a basis for comparing the farmers' income with that of the nonagricultural segment of our population. In these cases the kinds of income compared are not of the same type and are not comparable. Neither cash receipts from farm marketings, total cash receipts including Government payments, nor gross farm income are net income. Cash receipts from farm marketings and Government payments together, make up total cash receipts of farmers from farming. Total cash receipts, plus the value of home-consumed farm products, plus the rental value of farm dwellings, constitute gross farm income. Expenses of production are subtracted from gross income to arrive at net income. However, no production expense has been deducted from cash receipts from farm marketings, total cash receipts, or gross farm income. Consequently, they are gross estimates, not net. Since the part of national income attributable to non-

agricultural pursuits is net income, the comparison as suggested above is between agricultural income in gross terms and nonagricultural income in terms of net income. This results in a per capita agricultural income that is much too high and makes it appear that average returns to farm people are more nearly in line with those of nonfarm people than is really the case.

The best method now available for comparing the income of farm people with that of nonfarmers is to show in per capita terms the total net income

of people on farms from farming, and the total net income of the nonfarm population. These figures are obtained by dividing these two parts of the national income by the number of people in the two segments of the economy. To compare these per capita estimates in computing parity income, they are converted to index numbers on a 1910-14 base, by dividing each per capita series by its average during the base period.

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Bureau of Agricultural Economics

### Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		Oct. 15, 1946	Sept. 15, 1947	Oct. 15, 1947	Parity price Oct. 15, 1947
	August 1909-July 1914	January 1935- December 1939				
Wheat (bushel).....dollars	0.884	0.837	1.88	2.43	2.66	2.11
Rye (bushel).....do	.720	.554	1.99	2.48	2.49	1.72
Rice (bushel).....do	.813	.742	12.20	2.33	2.50	1.94
Corn (bushel).....do	.642	.601	11.69	2.40	2.23	1.53
Oats (bushel).....do	.399	.340	7.99	1.08	1.09	.954
Barley (bushel).....do	.619	.533	1.35	1.78	1.77	1.48
Sorghum grain (100 pounds).....do	1.21	1.17	2.60	3.29	3.24	2.89
Hay (ton).....do	11.87	8.87	16.10	16.10	16.80	28.40
Cotton (pound).....cents	12.4	10.34	37.69	31.21	30.65	29.64
Cottonseed (ton).....dollars	22.55	27.52	66.00	75.60	90.60	53.90
Soybeans (bushel).....do	1.96	.954	2.28	3.05	3.11	*2.29
Peanuts (pound).....cents	4.8	3.55	18.69	10.0	9.96	11.5
Flaxseed (bushel).....dollars	1.69	1.69	13.82	6.18	6.44	4.04
Potatoes (bushel).....do	*.697	.717	1.22	1.49	1.50	1.78
Sweetpotatoes (bushel).....do	.878	.807	2.09	2.40	2.05	2.10
Apples (bushel).....do	.96	.90	2.37	2.41	2.20	2.29
Oranges on tree (box).....do	*2.29	1.11	2.84	1.31	1.74	3.64
Hogs (hundredweight).....do	7.27	8.38	22.20	27.20	27.60	17.40
Beef cattle (hundredweight).....do	5.42	6.56	16.00	20.20	19.30	13.00
Veal calves (hundredweight).....do	6.75	7.80	16.20	21.70	21.30	16.10
Lambs (hundredweight).....do	5.88	7.79	17.40	21.60	20.30	14.10
Butterfat (pound).....cents	26.3	29.1	90.0	84.0	74.5	*64.9
Milk, wholesale (100 pounds).....dollars	1.60	1.81	15.07	14.42	4.64	*4.08
Chickens (pound).....cents	11.4	14.9	34.4	27.9	26.6	27.2
Eggs (dozen).....do	21.5	21.7	51.5	53.0	55.3	*59.6
Wool (pound).....do	18.3	23.8	41.5	40.6	40.8	43.7

\* Revised.

\* Comparable base price, August 1909-July 1914.

\* Comparable price computed under sec. 3 (b) Price Control Act.

\* 1919-28 average of \$1.12 per bu. used in computing parity.

\* 1919-28 average for computing parity price.

\* Adjusted for seasonal variation.

# Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 = 100) <sup>1</sup>	Income of industrial workers (1935-39 = 100) <sup>2</sup>	1910-14=100					Index of prices received by farmers (August 1909-July 1914=100)			
			Average earnings of factory workers	Wholesale prices of all commodities <sup>3</sup>	Prices paid by farmers		Farm wage rates <sup>4</sup>	Livestock and products			
					Commodities	Commodities, interest, and taxes		Dairy products	Poultry and eggs	Meat animals	All live-stock
1910-14 average.	58	50	100	100	100	100	100	100	101	101	101
1915-19 average.	72	90	152	158	151	150	148	148	154	163	158
1920-24 average.	75	122	221	160	161	173	178	159	163	123	142
1925-29 average.	98	129	232	143	155	168	179	160	155	148	154
1930-34 average.	74	78	179	107	122	135	115	105	94	85	93
1935-39 average.	100	100	199	118	125	128	118	119	109	119	117
1940-44 average.	192	234	325	139	150	147	212	162	146	171	164
1945 average.	203	290	403	154	180	174	350	197	196	210	203
1946 average.	170	270	391	177	203	194	378	242	198	256	240
1946											
October.	181	293	408	196	218	207	378	300	257	318	299
November.	182	298	409	204	224	212	-----	307	230	313	294
December.	182	305	417	206	225	213	-----	312	226	311	294
1947											
January.	188	308	419	207	227	215	399	292	201	306	281
February.	190	309	421	211	234	221	-----	270	192	319	278
March.	189	313	425	218	240	227	-----	269	199	345	292
April.	187	309	423	216	243	230	397	257	204	331	282
May.	185	313	432	215	242	229	-----	241	203	327	275
June.	184	318	440	216	244	231	-----	233	205	338	278
July.	177	312	436	220	244	231	404	244	220	343	286
August.	182	322	436	224	249	235	-----	258	224	349	295
September.	185	-----	-----	230	253	238	-----	282	246	367	315
October.	-----	-----	-----	230	254	239	404	283	251	360	313

Year and month	* Index of prices received by farmers (August 1909-July 1914=100)								Parity ratio <sup>6</sup>	
	Crops							All crops and live-stock		
	Food grains	Feed grains and hay	To-bacco	Cotton	Oil-bearing crops	Fruit	Truck crops			All crops
1910-14 average.....	100	101	102	96	98	99	-----	99	100	100
1915-19 average.....	193	164	187	168	187	125	-----	168	162	106
1920-24 average.....	147	126	192	189	149	148	143	160	151	86
1925-29 average.....	140	119	172	145	129	141	140	143	149	89
1930-34 average.....	70	76	119	74	72	94	106	86	90	66
1935-39 average.....	94	95	175	83	106	83	102	97	107	84
1940-44 average.....	123	119	245	131	159	133	172	143	154	103
1945 average.....	172	161	366	171	215	220	224	201	202	116
1946 average.....	201	195	382	228	244	226	204	226	233	120
1946										
October.....	218	222	410	304	255	208	151	244	273	132
November.....	220	187	399	236	342	186	207	230	263	124
December.....	224	186	406	242	334	211	166	232	264	124
1947										
January.....	223	184	399	240	336	196	238	236	260	121
February.....	235	185	390	246	334	203	275	245	262	119
March.....	263	212	390	257	360	215	299	266	280	123
April.....	277	223	387	260	358	223	295	269	276	120
May.....	276	218	390	270	326	222	286	268	272	119
June.....	253	240	390	275	318	228	215	262	271	117
July.....	251	253	390	289	314	215	189	263	276	119
August.....	246	270	383	267	308	177	211	255	276	117
September.....	278	297	352	252	311	181	179	254	286	120
October.....	302	284	357	247	344	166	238	261	289	121

<sup>1</sup> Federal Reserve Board represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

<sup>2</sup> Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised April 1947.

<sup>3</sup> Bureau of Labor Statistics.

<sup>4</sup> Monthly data adjusted for seasonal variation.

<sup>5</sup> Revised.

<sup>6</sup> Ratio of prices received to prices paid for commodities, interest, and taxes.

<sup>7</sup> 1924 only.

## Agricultural Prices Continue Rise

**F**ARMERS in mid-October were getting prices for their products that averaged 1 percent above a month earlier. The prices farmers paid for the things they bought, including interest and taxes, also averaged higher than in mid-September, but the rise was smaller than in prices received.

The prices farmers received averaged 289 percent of the 1909-14 level, a new high, while prices paid by farmers (including interest and taxes) averaged 239 percent of 1909-14, also a new high. From these figures, it is found that the prices farmers got for their products on October 15 represented 121 percent of parity.

Changes in prices received by farmers varied widely between commodities during the month up to October 15. Prices of truck crops, wheat, rice, hogs, cottonseed, flaxseed, oranges and wholesale milk went up. Egg prices also rose, although less than is normal for the season. On the other hand, prices of beef cattle, lambs, corn, grapefruit, sweetpotatoes, butterfat, and cotton went down.

The rise in prices paid by farmers came from increases in rural living costs. Prices of food, building materials, and miscellaneous supplies increased from a month earlier. Prices of production cost items averaged the same as in mid-September.

The index of commercial truck crop prices advanced more than seasonally from September to October, despite lower prices for lettuce and spinach. Tomatoes, snap beans, cauliflower, onions, green peas, and green peppers all increased in prices from the first half of September. Aggregate tonnage of fall truck crops is now estimated to be about one-fifth smaller than in 1946. At 238, the price index for October 15 was 33 percent higher than a month earlier, 58 percent above a year ago, and 27 percent above the previous October record of 187 in 1943.

Prices received by farmers for wheat climbed 23 cents from mid-September, to reach a new high of \$2.66 per bushel.

Prices received by farmers for all dairy products normally rise from Sep-

tember to October, but this year a sharp drop in butterfat prices and a smaller decline in prices for farm-made butter nearly offset a greater than seasonal increase in wholesale milk prices. As a result the index of dairy product prices, at 283 percent of the 1909-14 average, is 1 point above a month earlier.

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